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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/500,825	07/07/2004	Harald Hofmann	502902-183PUS	8491

27799 7590 06/29/2011  
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EXAMINER
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GRAMLING, SEAN P

ART UNIT	PAPER NUMBER
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2875

MAIL DATE	DELIVERY MODE
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06/29/2011

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/500,825	HOFMANN ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	SEAN GRAMLING	2875	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 May 2011.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,4-15 and 17-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-2, 4-15 and 17-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 4, 2011 has been entered. Claims 1, 17-18 and 20-21 are amended. Claims 1-2, 4-15 and 17-28 are pending.

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1-2, 4-12, 15 and 17-28** are rejected under 35 U.S.C. 103(a) as being unpatentable over *Hoffman* (DE 198 29 270 A1) in view of *Johnson* (US 5,463,280).

3. **Regarding claim 1**, Hoffman discloses a lamp 10 comprising at least one base 11 at a base end of the lamp for connection to a luminaire-side lamp fitting; an LED module 12 (see column 7, lines 43-64 which teaches that at least one of lamps 12,13 can be a light-emitting diode) arranged on the base 11; and at least one non-LED

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electrical lamp 13 arranged on the base (see Figures 2-7 and column 4, line 23 through column 7, line 64).

Hoffman does not specifically teach that the LED module 12 include a plurality of LED elements spaced apart from the base in a longitudinal direction from the base end to an opposing end of the lamp, wherein the LED elements are aligned substantially in the longitudinal direction of the lamp and form a cylindrical lens extending in the longitudinal direction of the lamp to focus light emitted by the LED elements.

However, lamps with a plurality of LED elements spaced apart from a base in a longitudinal direction from the base end to an opposing end of the lamp with the LED elements aligned substantially in the longitudinal direction of the lamp and form a cylindrical lens extending in the longitudinal direction of the lamp to focus light emitted by the LED elements are well-known in the art and is specifically taught in Johnson (see Johnson, Figures 1-2 and column 3, line 55 through column 6, line 23; particularly column 2, lines 58-63 and column 4, lines 7-14 which teaches that cylindrical element 12 can be a T6 1/2 formed of glass or clear plastic thus serving as a lens rather than diffuser).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the LED module 12 in Hoffman with a plurality of LED elements spaced apart from the base 11 in a longitudinal direction of the lamp and forming a cylindrical lens extending in the longitudinal direction as taught by Johnson in order to evenly distribute and converge the light through the lamp 10 while using a highly efficient and long-lasting lamp source of radiation.

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4. **Regarding claim 2**, the module 12 in Hoffman is a separately formed element and fixed to the base 11 of the lamp (see Figures 6-7).
5. **Regarding claim 4**, as modified above, the LED elements are aligned essentially along a longitudinal axis of the lamp (see Johnson, Figures 1-2).
6. **Regarding claim 5**, as modified above, the LED elements are designed such that they can be dimmed and/or switched on or off (see Johnson, column 3, line 55 through column 6, line 23).
7. **Regarding claim 6**, the module 12 in Hoffman is essentially light-permeable (see column 4, lines 23-68).
8. **Regarding claim 7**, the module 12 in Hoffman is designed to be at least partially reflective or light-scattering (see column 4, lines 23-68).
9. **Regarding claim 8**, the lamp in Hoffman includes a bulb element 17 which at least partially envelops the module 12 (see Figures 6-7).
10. **Regarding claims 9-10**, Hoffman teaches that the bulb element 17 contain diffusers (see column 5, line 62 through column 6, line 12), does not specify that the bulb element 17 be made of a plastic material. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to specify that the bulb element 17 be made of a plastic material in order to prevent damage to the bulb, and since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use (In re Leshin, 125 USPQ 416).

11. **Regarding claims 11-12**, Hoffman does not specifically teach that the diffuser bulb element 17 be formed through plastic-injection molding and does not specify that fluorescent diffusers be either admixed to the bulb or part of the plastic. However, these recitations relate to the method of forming the bulb element, and it has been held that the method of forming the device is not germane to the issue of patentability of the device itself and is not to be given patentable weight.
12. **Regarding claim 15**, the bulb element 17 in Hoffman is in the form of a diffuser (see Figures 6-7 and column 5, line 62 through column 6, line 12).
13. **Regarding claim 17**, the non-LED electrical lamp 13 in Hoffman has a fluorescent layer 16 (see Figures 2-5 and column 4, lines 23-68).
14. **Regarding claim 18**, as modified above, the non-LED electrical lamp 13 in Hoffman and the module 12 are arranged so that at a given radiation characteristic for the LED elements, LED radiation hits the fluorescent layer of the non-LED electrical lamp (see Figures 3-7).
15. **Regarding claim 19**, multiple reflections take place between the fluorescent layer 16 in Hoffman and the module 12 (see Figures 2-6).
16. **Regarding claim 20**, the non-LED electrical lamp 13 in Hoffman is in the form of a compact fluorescent lamp or a high-pressure discharge lamp (see Figures 2-3 and column 4, lines 23-68).
17. **Regarding claim 21**, the non-LED electrical lamp 13 is designed such that it can be dimmed and/or switched on or off (see column 6, lines 13-31).

18. **Regarding claim 22**, as modified above, the lamp in Hoffman further comprises a bulb element 17 which at least partially envelops both the module 12 having the LED elements and the non-LED electrical lamp 13 (see Figures 6-7).

19. **Regarding claim 23**, the lamp in Hoffman is essentially symmetrical with respect to a central plane of the lamp (see Figures 6-7).

20. **Regarding claim 24**, the module 12 in Hoffman is arranged centrally on the base (see Figure 6).

21. **Regarding claim 25**, at least two modules (12a, 12b) in Hoffman are arranged spaced apart from one another symmetrically along a central plane of the lamp (see Figures 3 and 7).

22. **Regarding claim 26**, two sections (12a, 12b) of a module are provided in Hoffman spaced apart from one another symmetrically with respect to a central plane of the lamp (see Figures 3 and 7).

23. **Regarding claim 27**, as modified above, the LED elements are each provided on one side of the module (see Johnson, Figure 2).

24. **Regarding claim 28**, the non-LED electrical lamp 13 in Hoffman is a fluorescent lamp (see Figure 3 and column 4, lines 23-68).

25. **Claims 13-14** are rejected under 35 U.S.C. 103 (a) as being unpatentable over *Hoffman* (DE 198 29 270 A1) and *Johnson* (US 5,463,280) and further in view of *Chan* (US 2003/0021117).

26. **Regarding claims 13-14**, Hoffman as modified by Johnson does not specifically teach that the bulb element 17 contain fluorescent diffusers capable of converting UV radiation emitted from the LED elements into visible light.

However, Chan teaches a plastic bulb element 5 with diffusers made of fluorescent material 1 that would convert UV light components emitted from LED elements 2 into visible light (see Figure 2 and paragraphs [0023] and [0034]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide fluorescent diffusers along a surface of the bulb element 17 in Hoffman as taught by Chan in order to achieve additional colored or white lighting through color blending and a uniform refraction of light through the bulb element in all directions for environmental lighting (see Chan, paragraph [0013]).

### ***Response to Arguments***

27. Applicant's arguments filed May 4, 2011 have been fully considered but they are not persuasive. Examiner respectfully disagrees with Applicant's submission that the module in Johnson does not form a cylindrical lens extending in the longitudinal direction of the lamp to focus light emitted by the LED elements 16. As noted above, Johnson teaches that cylindrical element 12 (see Figure 1 and teaching that element 12 is a T6 1/2) extends in the longitudinal direction of the lamp and is can serve as a lens to focus the light emitted by the LED elements (see column 2, lines 58-63 and column 4, lines 7-14 which teaches that cylindrical element 12 can be formed of glass or clear plastic thus serving as a lens rather than diffuser). Accordingly, Johnson teaches that



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the LED elements 16 are aligned substantially in the longitudinal direction of the lamp and the module forms a cylindrical lens 12 extending in the longitudinal direction of the lamp to focus light emitted by the LED elements. The rejections of claims 1-2, 4-12, 15 and 17-28 under 35 U.S.C. 103(a) as being unpatentable over Hoffman and further in view of Johnson are therefore maintained.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SEAN GRAMLING whose telephone number is (571)272-9082. The examiner can normally be reached on MONDAY-FRIDAY 7:30 AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diane Lee can be reached on (571) 272-2399. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Sean P Gramling  
Examiner  
Art Unit 2875

/SPG/

/Diane I Lee/  
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